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Fundamental problems of oil industry

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Abstract

The current state of the oil industry requires an urgent solution to fundamental problems. Based on the foundation of the modern petroleum science, it's necessary to calculate reserves and to accomplish a design, taking into account geological, balance, off-balance, and recoverable reserves. The geological models should be built on a new basis in accordance with these categories, the filtration models - in accordance with current concepts of filtration processes. Design should be accomplished on the basis of the effective pore space concept, using models that take into account the geological reserves and all the peculiarities of the geological structure of deposits. Development should be carried on the principles of innovative design, taking into account the new criteria of optimality and rationality.

Keywords

Absolute and effective pore space, Balance, Design of rational development system, Economic criteria, Geological, Geological and filtration models, Geological models, Internal rate of return (irr), Net present value (NPV), Off-balance, Oil difficult to recover, Oil recovery factor, Profitability index (pi), Recoverable reserves, The period of cost recovery

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